

ABSTRACT

A method for preparing a silver nano-structure by means of a scanning tunneling microscopy, which comprises using a probe being made of silver or having a surface coated with a thin silver film, and applying a voltage pulse to the probe, to thereby transfer a silver material from the probe onto the surface of a semiconductor substrate on a nano scale. The method allows the preparation with ease of a silver nano-structure exhibiting high electroconductivity and being optimal as a material for an electrode on an arbitrary place of a semiconductor substrate.